INDEX TO VOLUME 149

Alphabetical Table of Contents of Authors

ABOUHEIF, EHAB, and DAPHNE J. FAIR-BAIRN. A comparative analysis of allometry for sexual size dimorphism: assessing Rensch's rule, 540

ÅGREN, GÖRAN I. See DAVID ZHENG W. ALBON, S. D. See T. H. CLUTTON-BROCK ANDEL, FRANK. See W. SCOTT ARM-

BRUSTER
ANDREWS, ROBIN M. See JUDY STAMPS
ANTONOVICS, JANIS. See PETER H. THRALL
ARMBRUSTER, W. SCOTT, JEROME J. HOWARD, THOMAS P. CLAUSEN, EDWARD
DEBEVEC, JOHN LOQUVAM, MAMORU
MATSUKI, BIANCA CERENDOLO, and
FRANK ANDEL. Do biochemical exaptations link evolution of plant defense
and pollination systems? historical
hypotheses and experimental tests with
Dalechampia vines, 461

AYRE, DAVID J. See RICHARD K. GROSBERG

BAUWENS, DIRK, and RAMÓN ĎAZ-URIARTE. Covariation of life-history traits in lacertid lizards: a comparative study: a comparative study, 91

BENGTSSON, JAN. See DAVID W. ZHENG BEVER, JAMES D. See PETER H. THRALL BOAKE, CHRISTINE R. B. See IVICH FRASER BOTSFORD, LOUIS W. See KEVIN HIGGINS BROWN, JAMES H. See FELISA A. SMITH

BROYLES, STEVEN B., and ROBERT WYATT.
The pollen donation hypothesis revisited: a response to Queller, 595

BUCKLEY, NEIL J. Spatial-concentration effects and the importance of local enhancement in the evolution of colonial breeding in seabirds, 1091

CABRERO, J. See J. P. M. CAMACHO CAMACHO, J. P. M., M. W. SHAW, M. D. LÓPEZ-LEÓN, M. C. PARDO, and J. CA-BRERO. Population dynamics of a selfish B chromosome neutralized by the standard genome in the grasshopper *Eyprepocnemis plorans*, 1030

CAMPBELL, DIANE R., NICKOLAS M.
WASER, and ELVIA J. MELÉNDEZ-ACKERMAN. Analyzing pollinator-mediated selection in a plant hybrid zone: hummingbird visitation patterns on three spatial scales, 295

CERENDOLO, BIANCA. See W. SCOTT ARM-BRUSTER

CHAPIN, F. S. III. See M. TATENO CHARLESWORTH, BRIAN. Is founder-flush speciation defensible? 600

CLANCY, DAVID J., and ARY A. HOFF-MANN. Behavior of Wolbachia endosymbionts from Drosophila simulans in Drosophila serrata, a novel host, 975

CLAUSEN, THOMAS P. See W. SCOTT ARM-BRUSTER

CLUTTON-BROCK, T. H., A. W. ILLIUS, K. WILSON, B. T. GRENFELL, A. D. C. MACCOLL, and S. D. ALBON. Stability and instability in ungulate populations: an empirical analysis, 195

COBB, NEIL S. See CATHERINE A. GEHRING

DAY, TROY, and PETER D. TAYLOR. Von Bertalanffy's growth equation should not be used to model age and size at maturity, 381

Debevec, Edward. See W. Scott Armbruster

Díaz-Uriarte, Ramón. See Dirk Bauwens

DUGATKIN, LEE A. See DAVID SLOAN WILSON

DUNCAN, RICHARD P. The role of competition and introduction effort in the success of passeriform birds introduced to New Zealand, 903

DWYER, GREG. See WILLIAM F. MORRIS

ELLNER, STEPHEN, See STEVEN L. PECK

FAIRBAIRN, DAPHNE J. See EHAB ABOUHEIF

FOX, CHARLES W., MONICA S. THAKAR, and TIMOTHY A. MOUSSEAU. Egg size plasticity in a seed beetle: an adaptive maternal effect. 149

FRASER, IVICH, and CHRISTINE R. B. BOAKE. Behavioral isolation, test designs, and Kaneshiro's hypothesis, 527

GAGE, M. J. G. See P. STOCKLEY GEHRING, CATHERINE A., NEIL S. COBB, and THOMAS G. WHITHAM. Three-way interactions among ectomycorrhizal mutualists, scale insects, and resistant and susceptible pinyon pines, 824

GILES, BARBARA, E., and JÉRÔME GOUDET. Genetic differentiation in *Silene dioica* metapopulations: estimation of spatiotemporal effects in a successful plant species, 507

GOMULKIEWICZ, RICHARD. See ROBERT D.

GOSLINE, J. M. See R. E. SINCLAIR
GOUDET, JÉRÔME. See BARBARA E. GILES
GRACE, JAMES B., and BRUCE H. PUGESEK.
A structural equation model of plant
species richness and its application to
a coastal wetland, 536

GRANT, B. ROSEMARY. See PETER R. GRANT

Grant, Peter R., and B. Rosemary Grant. Hybridization, sexual imprinting, and mate choice, 1

GRENFELL, B. T. See T. H. CLUTTON-BROCK

GROSBERG, RICHARD K., and DAVID J.

AYRE. Is there a relationship between
multilocus homozygosity and dominance rank in sea anemones? a reply
to Zeh and Zeh. 790

GULDBRANDTSEN, BERNT. Maintenance of variation in mating success in hermaphrodites with a sexually transmitted disease, 693

HAIRSTON, NELSON G., JR., and NELSON G. HAIRSTON, SR. Does food web complexity eliminate trophic-level dynamics? 1001

Hairston, Nelson G., Sr. See Nelson G. Hairston, Jr.

HANSEN, THOMAS F. See EMÍLIA MARTÍNS

HANSKI, ILKKA. See PETER TURCHIN HARCOURT, A. M. Sperm competition in primates, 189

HASEGAWA, EISUKE. The optimal caste ratio in polymorphic ants: estimation and empirical evidence, 706

HASTINGS, ALAN. See KEVIN HIGGINS HATFIELD, TODD. Genetic divergence in adaptive characters between sympatric species of stickleback, 1009

HELLE, EERO. See ESA RANTA

Higgins, Kevin, Alan Hastings, and Louis W. Botsford. Density dependence and age structure: nonlinear dynamics and population behavior, 247

HILLGARTH, NIGELLA. See CHRISTOPHER W. THOMPSON

HOFFMAN, ARY A. See DAVID J. CLANCY HOLT, ROBERT D., and RICHARD GOMUL-KIEWICZ. How does immigration influence local adaptation? a reexamination of a familiar paradigm, 563

HOLT, ROBERT D., and GARY A. POLIS. A theoretical framework for intraguild predation, 745

HOWARD, JEROME J. See W. SCOTT ARM-BRUSTER

ILLIUS, A. W. See T. H. CLUTTON-BROCK IVES, ANTHONY R., and WILLIAM H. SET-TLE. Metapopulation dynamics and pest control in agricultural systems, 220

IWAO, KEISUKE, and MARK D. RAUSHER. Evolution of plant resistance to multiple herbivores: quantifying diffuse coevolution, 316

KAITALA, VEIJO. See ESA RANTA KARBAN, RICHARD. See JENNIFER S. THALER KEMPENAERS, BART. See RICHARD B. LANCTOT

KOKKO, HANNA. See ESA RANTA KOKKO, HANNA, and JAN LINDSTRÖM. Measuring the mating skew, 794

KOZŁOWSKI, JAN, and JANUARY WEINER. Interspecific allometries are by-products of body size optimization, 352

KŘIVAN, VLASTIMIL. Dynamic ideal free distribution: effects of optimal patch choice on predator-prey systems, 164

LANCTOT, RICHARD B., KIM T. SCRIBNER, BART KEMPENAERS, and PATRICK J. WEATHERHEAD. Lekking without a

- paradox in the buff-breasted sandpiper, 1051
- LEHMAN, CLARENCE L. See DAVID TILMAN LENNARTSSON, TOMMY, JUHA TUOMI, and PATRIC NILSSON. Evidence for an evolutionary history of overcompensation in the grassland biennial *Gentianella campestris* (Gentianaceae), 1147
- LEU, MATTHIAS. See CHRISTOPHER W. THOMPSON
- LINDÉN, HARTO. See ESA RANTA LINDSTRÖM, JAN. See ESA RANTA
- LINDSTROM, JAN. See ESA RANTA

 ———. See HANNA KOKKO
- LÓPEZ-LEÓN, M. D. See J. P. M. CAMACHO LOQUVAM, JOHN. See W. SCOTT ARM-BRUSTER
- Losos, Jonathan B. See Judy A. Stamps
- MACCOLL, A. D. C. See T. H. CLUTTON-BROCK
- Martíns, Emília, and Thomas F. Hansen. Phylogenies and the comparative method: a general approach to incorporating phylogenetic information into the analysis of interspecific data, 646
- MATSUKI, MAMORU. See W. SCOTT ARM-BRUSTER
- McClure, H. Elliot. See Christopher W. Thompson
- MELÉNDEZ-ACKERMAN, ELVIA J. See DIANE R. CAMPBELL
- MENGE, BRUCE A. Detection of direct versus indirect effects: were experiments long enough? 801
- MICHOD, RICHARD E. Cooperation and conflict in the evolution of individuality. I. Multilevel selection of the organism,
- Møller, A. P. See P. STOCKLEY
- Møller, Anders Pape. Developmental stability and fitness: a review, 916
- MÖNKKÖNEN, MIKKO, and MARKKU OR-ELL. Clutch size and cavity excavation in parids (Paridae): limited breeding opportunities hypothesis tested, 1164
- MORRIS, WILLIAM F., and GREG DWYER.
 Population consequences of constitutive and inducible plant resistance:
 herbivore spatial spread, 1071
- Mousseau, Timothy A. See Charles W. Fox
- NUHOUT, H. FREDERIK, and SUSAN M. PAULSEN. Developmental models and polygenic characters, 394

- NILSSON, PATRIC. See TOMMY LEN-NARTSSON
- Noor, Mohamed A. F. How often does sympatry affect sexual isolation in *Dro*sophila? 1156
- Olsson, M., and R. Shine. The limits to reproductive ouput: offspring size versus number in the sand lizard (*Lacerta* agilis), 179
- ORELL, MARKKU. See MIKKO MÖNKKÖNEN
- PARDO, M. C. See J. P. M. CAMACHO
- PARKER, G. A. See P. STOCKLEY
- Paulsen, Susan M. See H. Frederik Nijhout
- Peck, Steven L., and Stephen Ellner. The effect of economic thresholds and life-history parameters on the evolution of pesticide resistance in a regional setting, 43
- POLAK, MICHAEL. Ectoparasitism in mothers causes higher positional fluctuation assymetry in their sons: implications for sexual selection, 955
- Polis, Gary A. See Robert D. Holt Prum, Richard O. Phylogenetic tests of alternative intersexual selection mechanisms: trist macroevolution in a polygynous clade (Aves: Pipridae), 668
- PUGESEK, BRUCE H. See JAMES B. GRACE
- QUELLER, DAVID. Pollen removal, paternity, and the male function of flowers, 585
- RAHBEK, CARSTEN. The relationship among area, elevation, and regional species richness in Neotropical birds. 875
- RANTA, ESA, JAN LINDSTRÖM, VEIJO KAI-TALA, HANNA KOKKO, HARTO LIN-DÉN, and EERO HELLE. Solar activity and hare dynamics: a cross-continental comparison, 765
- RAUSHER, MARK D. See KEISUKE IWAO
 - SCRIBNER, KIM T. See RICHARD B. LANCTOT
- SETTLE, WILLIAM, H. See ANTHONY R. IVES
- SHAW, M. W. See J. P. M. CAMACHO
- SHINE, R. See M. OLSSON
- SHIPLEY, BILL. Exploratory path analysis with applications in ecology and evolution, 1113

SINCLAIR, A. R. E., and J. M. GOSLINE. Solar activity and mammal cycles in the Northern Hemisphere, 776

SLATKIN, MONTGOMERY. Reply to Charlesworth, 604

SMITH, FELISA A., JAMES H. BROWN, and THOMAS J. VALONE. Path analysis: a critical evaluation using long-term experimental data, 29

STAMPS, JUDY A., JONATHAN B. LOSOS, and ROBIN M. ANDREWS. A comparative study of population density and sexual size dimorphism in lizards, 64

STOCKLEY, P., M. J. G. GAGE, G. A. PAR-KER, and A. P. MØLLER. Sperm competition in fishes: the evolution of testis size and ejaculate characteristics, 933

TATENO, M., and F. S. CHAPIN III. The logic of carbon and nitrogen interactions in terrestrial systems, 723

TAYLOR, ANDREW D. Density-dependent parasitoid recruitment per parasitized host: effects on parasitoid-host dynamics, 989

TAYLOR, PETER D. See TROY DAY

THAKAR, MONICA S. See CHARLES W. FOX THALER, JENNIFER S., and RICHARD KAR-BAN. A phylogenetic reconstruction of constitutive and induced resistance in *Gossypium*, 1139

THOMPSON, CHRISTOPHER W., NIGELLA HILLGARTH, MATTHIAS LEU, and H. ELLIOTT MCCLURE. High parasite load in house finches (Carpodacus mexicanus) is correlated with reduced expression of a sexually selected trait, 270

THRALL, PETER H.; JANIS ANTONOVICS, and JAMES D. BEVER. Sexual transmission of disease and host mating systems: within-season reproductive success, 485 TILMAN, DAVID, CLARENCE L. LEHMAN, and CHENGJUN YIN. Habitat destruction, dispersal, and deterministic extinction in competitive communities, 407

TUOMI, JUHA. See TOMMY LENNARTSSON TURCHIN, PETER, and ILKKA HANSKI. An empirically based model for latitudinal gradient in vole population dynamics, 842

VALONE, THOMAS J. See FELISA A. SMITH

WASER, NICKOLAS M. See DIANE R. CAMP-BELL

WEATHERHEAD, PATRICK J. See RICHARD B. LANCTOT

WEINER, JANUARY. See JAN KOZŁOWSKI WHITHAM, THOMAS G. See CATHERINE A. GEHRING

WILSON, DAVID SLOAN, and LEE A. DU-GATKIN. Group selection and assortative interactions. 336

WILSON, K. See T. H. CLUTTON-BROCK WYATT, ROBERT. See STEVEN B. BROYLES

YASUI, YUKIO. A "good-sperm" model can explain the evolution of costly multiple mating by females, 573

YIN, CHENGJUN. See DAVID TILMAN YOSHIMURA, JIN. The evolutionary origins of periodical cicadas during Ice Ages, 112

ZEH, DAVID W. See JEANNE A.
ZEH, JEANNE A., and DAVID W. ZEH. Homozygosity, self-recognition, and aggressive ability in the sea anemone, An-

thopleura elegantissima, 785

ZHENG, DAVID W., JAN BENGTSSON, and GÖRAN I. ÅGREN. Soil food webs and ecosystem processes: decomposition in donor-control and Lotka-Volterra systems, 125

Alphabetical Table of Contents of Titles

Analyzing pollinator-mediated selection in a plant hybrid zone: hummingbird visitation patterns on three spatial scales. Diane R. Campbell, Nickolas M. Waser, and Elvia J. Meléndez-Ackerman. 295

Behavior of Wolbachia endosymbionts

from *Drosophila simulans* in *Drosophila serrata*, a novel host. David J. Clancy and Ary A. Hoffmann,975

Behavioral isolation, test designs, and Kaneshiro's hypothesis. Ivich Fraser and Christine R. B. Boake, 527

Clutch size and cavity excavation in parids

- (Paridae): limited breeding opportunities hypothesis tested. Mikko Mönkkönen and Markku Orell, 1164
- A comparative analysis of allometry for sexual size dimorphism: assessing Rensch's rule. Ehab Abouheif and Daphne J. Fairbairn, 540
- A comparative study of population density and sexual size dimorphism in lizards. Judy A. Stamps, Jonathan B. Losos, and Robin M. Andrews, 64
- Cooperation and conflict in the evolution of individuality. I. Multilevel selection of the organism. Richard E. Michod, 607
- Covariation of life-history traits in lacertid lizards: a comparative study. Dirk Bauwens and Ramón Díaz-Uriarte, 91
- Density dependence and age structure: nonlinear dynamics and population behavior. Kevin Higgins, Alan Hastings, and Louis W. Botsford, 247
- Density-dependent parasitoid recruitment per parasitized host: effects on parasitoid-host dynamics. Andrew D. Taylor, 989
- Detection of direct versus indirect effects: were experiments long enough? Bruce A. Menge, 801
- Developmental models and polygenic characters. H. Frederik Nijhout and Susan M. Paulsen, 394
- Developmental stability and fitness: a review. Anders Pape Møller, 916
- Do biochemical exaptations link evolution of plant defense and pollination systems? historical hypotheses and experimental tests with *Dalechampia* vines. W. Scott Armbruster, Jerome J. Howard, Thomas P. Clausen, Edward Debevec, John Loquvam, Mamoru Matsuki, Bianca Cerendolo, and Frank Andel, 461
- Does food web complexity eliminate trophic-level dynamics? Nelson G. Hairston, Jr., and Nelson G. Hairston, Sr., 1001
- Dynamic ideal free distribution: effects of optimal patch choice on predator-prey systems. Vlastimil Křivan, 164
- Ectoparasitism in mothers causes higher positional fluctuation assymetry in their sons: implications for sexual selection. Michael Polak, 955

- The effect of economic thresholds and lifehistory parameters on the evolution of pesticide resistance in a regional setting. Steven L. Peck and Stephen Ellner, 43
- Egg size plasticity in a seed beetle: an adaptive maternal effect. Charles W. Fox, Monica S. Thakar, and Timothy A. Mousseau, 149
- An empirically based model for latitudinal gradient in vole population dynamics. Peter Turchin and Ilkka Hanski, 842
- Evidence for an evolutionary history of overcompensation in the grassland biennial *Gentianella campestris* (Gentianaceae). Tommy Lennartsson, Juha Tuomi, and Patric Nilsson, 1147
- Evolution of plant resistance to multiple herbivores: quantifying diffuse coevolution. Keisuke Iwao and Mark D. Rausher, 316
- The evolutionary origins of periodical cicadas during Ice Ages. Jin Yoshimura,
- Exploratory path analysis with applications in ecology and evolution. Bill Shipley, 1113
- Genetic differentiation in *Silene dioica* metapopulations: estimation of spatiotemporal effects in a successful plant species. Barbara E. Giles and Jérôme Goudet, 507
- Genetic divergence in adaptive characters between sympatric species of stickleback. Todd Hatfield, 1009
- A "good-sperm" model can explain the evolution of costly multiple mating by females. Yukio Yasui, 573
- Group selection and assortative interactions. David Sloan Wilson and Lee A. Dugatkin, 336
- Habitat destruction, dispersal, and deterministic extinction in competitive communities. David Tilman, Clarence L. Lehman, and Chengjun Yin, 407
- High parasite load in house finches (Carpodacus mexicanus) is correlated with reduced expression of a sexually selected trait. Christopher W. Thompson, Nigella Hillgarth, Matthias Leu, and H. Elliott McClure, 270
- Homozygosity, self-recognition, and aggressive ability in the sea anemone, An-

thopleura elegantissima. Jeanne A. Zeh and David W. Zeh, 785

How does immigration influence local adaptation? a reexamination of a familiar paradigm. Robert D. Holt and Richard Gomulkiewicz, 563

How often does sympatry affect sexual isolation in *Drosophila?* Mohamed A. F. Noor, 1156

Hybridization, sexual imprinting, and mate choice. Peter R. Grant and B. Rosemary Grant, 1

Interspecific allometries are by-products of body size optimization. Jan Kozłowski and January Weiner, 352

Is founder-flush speciation defensible?
Brian Charlesworth, 600

Is there a relationship between multilocus homozygosity and dominance rank in sea anemones? a reply to Zeh and Zeh. Richard K. Grosberg and David J. Ayre, 790

Lekking without a paradox in the buffbreasted sandpiper. Richard B. Lanctot, Kim T. Scribner, Bart Kempenaers, and Patrick J. Weatherhead, 1051

The limits to reproductive ouput: offspring size versus number in the sand lizard (*Lacerta agilis*). M. Olsson and R. Shine, 179

The logic of carbon and nitrogen interactions in terrestrial systems. M. Tateno and F. S. Chapin III, 723

Maintenance of variation in mating success in hermaphrodites with a sexually transmitted disease. Bernt Guldbrandtsen, 693

Measuring the mating skew. Hanna Kokko and Jan Lindström, 794

Metapopulation dynamics and pest control in agricultural systems. Anthony R. Ives and William H. Settle, 220

The optimal caste ratio in polymorphic ants: estimation and empirical evidence. Eisuke Hasegawa, 706

Path analysis: a critical evaluation using long-term experimental data. Felisa A. Smith, James H. Brown, and Thomas J. Valone, 29 A phylogenetic reconstruction of constitutive and induced resistance in *Gossypium*. Jennifer S. Thaler and Richard Karban, 1139

Phylogenetic tests of alternative intersexual selection mechanisms: trist macroevolution in a polygynous clade (Aves: Pipridae), Richard O. Prum, 668

Phylogenies and the comparative method: a general approach to incorporating phylogenetic information into the analysis of interspecific data. Emília Martíns and Thomas F. Hansen, 646

The pollen donation hypothesis revisited: a response to Queller. Steven B. Broyles and and Robert Wyatt, 595

Pollen removal, paternity, and the male function of flowers. David Queller, 585

Population consequences of constitutive and inducible plant resistance: herbivore spatial spread. William F. Morris and Greg Dwyer, 1071

Population dynamics of a selfish B chromosome neutralized by the standard genome in the grasshopper *Eyprepocnemis plorans*. J. P. M. Camacho, M. W. Shaw, M. D. López-León, M. C. Pardo, and J. Cabrero, 1030

The relationship among area, elevation, and regional species richness in Neotropical birds. Carsten Rahbek, 875

Reply to Charleworth. Montgomery Slatkin, 604

The role of competition and introduction effort in the success of passeriform birds introduced to New Zealand. Richard P. Duncan, 903

Sexual transmission of disease and host mating systems: within-season reproductive success. Peter H. Thrall, Janis Antonovics, and James D. Bever, 485

Soil food webs and ecosystem processes: decomposition in donor-control and Lotka-Volterra systems. David W. Zheng, Jan Bengtsson, and Göran I. Ågren, 125

Solar activity and hare dynamics: a crosscontinental comparison. Esa Ranta, Jan Lindström, Veijo Kaitala, Hanna Kokko, Harto Lindén, and Eero Helle,

- Solar activity and mammal cycles in the Northern Hemisphere. A. R. E. Sinclair and J. M. Gosline, 776
- Spatial-concentration effects and the importance of local enhancement in the evolution of colonial breeding in seabirds. Neil J. Buckley, 1091
- Sperm competition in fishes: the evolution of testis size and ejaculate characteristics. P. Stockley, M. J. G. Gage, G. A. Parker, and A. P. Møller
- Sperm competition in primates. A. M. Harcourt, 189
- Stability and instability in ungulate populations: an empirical analysis. T. H. Clutton-Brock, A. W. Illius, K. Wilson, B. T. Grenfell, A. D. C. MacColl, and S. D. Albon. 195

- A structural equation model of plant species richness and its application to a coastal wetland. James B. Grace and Bruce H. Pugesek, 536
- A theoretical framework for intraguild predation. Robert D. Holt and Gary A. Polis. 745
- Three-way interactions among ectomycorrhizal mutualists, scale insects, and resistant and susceptible pinyon pines. Catherine A. Gehring, Neil S. Cobb, and Thomas G. Whitham, 824
- Von Bertalanffy's growth equation should not be used to model age and size at maturity. Troy Day and Peter D. Taylor, 381

Alphabetical Table of Keywords

- abiotic conditions, 436 absolute fitness, 563 Acacia greggii, 149 adaptation, 563, 1009, 1147 aggression, 790 agonistic behavior, 790 allometry, 91, 540 allorecognition, 790 alternative stable states, 745 altruism, 336, 607 Anthopleura elegantissima, 785 Asclepias, 585, 595 assortative interactions, 336
- B chromosomes, 1030 Bateman's principle, 585 behavioral isolation, 527 biodiversity, 407 biological control, 220 biomass, 436 birds, 875, 1164 body size, 352, 381, 540
- Canada, 765 caste, 706 Cercidium floridum, 149 chaos, 43, 247, 842 Charnov's invariants 352 Chihuahuan Desert, 29 climate change, 723 clines, 295 clonal, 790 coevolution, 316

- coloniality, 1091 colonization, 507 community assembly, 903 community structure, 824 community modules, 745 comparative method, 91, 646 competition, 29, 407, 745 constitutive resistance, 1139 consumption efficiency, 1001 cooperation, 336 covariation, 91 cytoplasmic incompatibility, 975
- Dalechampia, 461
 decomposition, 125
 density dependence, 989
 density lizards, 64
 development, 394
 differentiation, 507
 direct effects, 801
 directional comparison, 1164
 discrimination, 1156
 dispersal, 407
 diversity, 436
 dominance, 785
 Drosophila, 955, 975
 dynamics, 989
- ecophsyiology, 352 ecosystem pattern, 1001 ecosystem process, 125 ectomycorrhiza, 824 egg size, 149

ejaculate characteristics, 933 elevated CO₂, 723 elevational gradient, 875 empirically based model, 842 energy limitation, 179 environmental noise, 247 ergonomic efficiency, 706 evolution, 112, 461, 573, 1164 exaptation, 461 experimental test design, 527 exploratory statistics, 1113 extinction, 407 *Eyprepocnemis plorans*, 1030

fecundity, 916 feedback, 723 Finland, 765 fixation probability, 600 flowering time, 1147 fluctuating asymmetry, 916, 955 food webs, 125 foraging, 1091 founder effect, 600

game theory, 164 Gasterosteus, 1009 gene flow, 604 gene number, 1009 generalist predator, 842 generalized least squares, 646 generalized linear model, 646 genetic benefit, 573 genetic variation, 693 genotype, 394 Gentianella, 1147 germ line, 607 gonadosomatic index, 933 grass cover, 29 grasslands, 1147 group selection, 336, 607 growth, 381, 916

habitat destruction, 407 habitat fragmentation, 407 harvest mice, 29 Hawaiian *Drosophila*, 527 hawkmoths, 295 herbivore, 824 herbivory, 316, 461, 1001, 1071, 1147 hermaphrodites, 585, 693 heterotic model, 1030 homozygosity, 785, 790 honest signaling, 270 host, 989 hummingbirds, 295 hybrid zones, 295 hybridization, 1, 1009

Ice Ages, 112 ideal free distribution, 164 immigration, 563 imprinting, 1 independent contrasts, 540, 1164 indirect effects, 801 indirect interactions, 824 induced resistance, 1139 information, 1091 insect pests, 220 instability, 195 interaction webs, 801 interspecific allometries, 352 interspecific competition, 903 intraguild predation, 745 invasion, 903 isolation, 1156

Kaneshiro hypothesis, 527 kangaroo rats, 29

lacertid lizards, 91 lek paradox, 1051 lekking, 794 life expectancy, 352 life history, 91, 179, 352, 381 litter quality, 723 longevity, 916

Macrocheles, 955 macroevolution, 668 male function, 585 male reproductive success, 595 mate choice, 1, 794 mate selection, 1051 mating, 1156 mating behavior, 485 mating opportunities, 112 mating skew, 794 mating success, 693 mating system, 189 maturation determinants, 112 maturity, 381 metapopulation, 507, 604 metapopulation dynamics, 220 microtine rodents, 842 mites, 955 monogamy, 485 morphology, 1

multilevel selection, 336 multiple mating, 573 mutation, 607

near-neutral, 1030 nest predation, 1164 nitrogen deposition, 723 nitrogen-use efficiency, 723 nonlinear dynamics, 247

omnivory, 1001 optimal foraging theory, 164 optimal strategies, 485 overcompensation, 1147

parasites, 270 parasitic model, 1030 parasitism, 955 parasitoid, 989 partial correlations, 1113 path analysis, 1113 pathogen virulence, 485 peak shift, 600 period, 247 periodical cicadas, 112 persistence, 164 pesticide resistance, 43 phenotype, 394 phenotypic plasticity, 149 phenotypic selection, 295 phylogenetic analysis, 1139 phylogeny, 461, 646, 668 plant resistance, 1071 plant-insect interaction, 316 plant-pathogen interaction, 316 plants, 585 plumage color, 270 pocket mice, 29 pollen donation hypothesis, 595 pollen limitation, 595 pollination, 295, 461 polyandry, 573 polymorphism, 706 population cycles, 195 population dynamics, 164, 195, 765, 776, 975

population cycles, 195 population dynamics, 164, 199 975 population genetics, 43 population growth, 604 population oscillations, 842 predation, 1001 predator-prey dynamics, 220 preferences, 668 primates, 189 prime numbers, 112 promiscuity, 485 propagule size, 903

quantitative traits, 394

regional species richness, 875 regression, 646 reinforcement, 1156 Rensch's rule, 540 reproductive, 1156 reptile, 179 resistance, 316, 824 resource, 149 resource limitation, 595 rice, 220 rocky intertidal zone, 801

seabirds, 1091 selection levels, 607 self-recognition, 785, 790 selfish model, 1030 sexual disease, 693 sexual selection, 64, 270, 527, 540, 585, 595, 668, 794, 955 sexual size dimorphism, 64, 540 sexually transmitted disease, 485 SGS, 1113 Silene dioica, 507 simulation, 1091 sink population, 563 snowshoe hare, 765 snowshoe hare cycles, 776 social insects, 706 soil, 125 soil organism, 125 song, 1 South America, 875 spatial models, 43 spatial spread, 1071 specialist predator, 842 speciation, 600, 604, 1009, 1156 species coexistence, 745 species density, 436 species richness, 436 species-area curves, 975 sperm competition, 189, 573, 933 sperm length, 933 stability, 989 structural equation modeling, 1113 succession, 507 sunspots, 765, 776 survival, 916 synchronization, 112

synchrony, 765, 776 systematics, 646

testes, 189 TETRAD, 1113 theory, 125 trade-off, 91, 179 traits, 668 trophic structure, 1001 truncation, 247 Tryngites subruficollis, 1051 underdominance, 1009 ungulates, 195 unstable dynamics, 745

variability, 247 volume constraints, 179 Von Bertalanffy, 381

wetlands, 436 Wolbachia, 975

